



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,836	06/12/2001	Laurent F A Hennequin	P.278065	6411

9629 7590 11/03/2005

MORGAN LEWIS & BOCKIUS LLP  
1111 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

EXAMINER

TRUONG, TAMTHOM NGO

ART UNIT PAPER NUMBER

1624

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/806,836

Applicant(s)

HENNEQUIN ET AL.

Examiner

Tamthom N. Truong

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 5-9, 14, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### FINAL ACTION

Applicant's amendment of 8-10-05 is fully considered. The amended claims 9 and 18 have overcome the previous rejection of 112/2<sup>nd</sup> paragraph. However, it is noted that claims 9 and 19 still have limitations in parentheses, and thus, said rejection is maintained for those claims. Applicant's argument has not overcome the previous 103 rejections based on **Myers et. al.** (US'969 – in view of **Hawley's Condensed Chemical Dictionary** for compound and process claims, and in view of **Mohammadi et. al.** for method claims), and based on **Manning et. al.** (WO'321). Therefore, the 103 rejections are maintained as well.

Claims 1-4 and 15 are cancelled.

Claims 5-14 and 16-19 are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 112, Second Paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

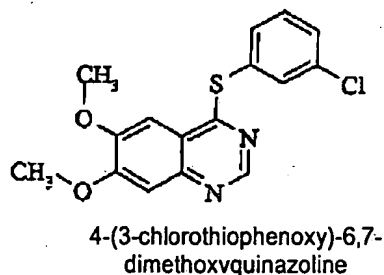
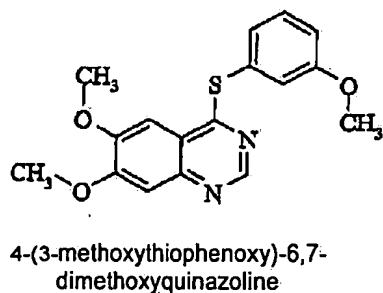
1. Claims 9 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims depend on claim 18 which has eliminated parentheses;

however, claims 9 and 19 still recite limitations in parentheses which are not clear if they are part of the claims, or a mere explanation.

***Claim Rejections - 35 USC § 103***

2. Claims 5-9, 14, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Myers et. al.** (US'969) in view of **Hawley's Condensed Chemical Dictionary**. The rejection is maintained for the reasons stated in the previous action and for the one below:

In applicants' view, two of Myers' disclosed compounds (on column 9, lines 54 and 58) have the following structures:

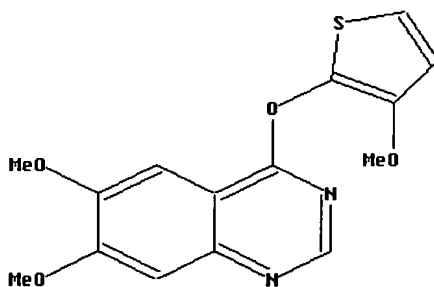


Applicants interpreted the substituent *3-methoxythiophenoxy* to be *3-methoxyphenyl-S*, and the substituent *3-chlorothiophenoxy* – to be *3-chlorophenyl-S*-. Applicants asserted that the term “thiophenol” in **Hawley's Condensed Chemical Dictionary** supported such an interpretation. Note, the compound drawn on the right is actually disclosed on column 10, line 39 of US'969 by the name of *4-(3-chlorophenylthio)-6,7-dimethoxyquinazoline*. Therefore, applicant's

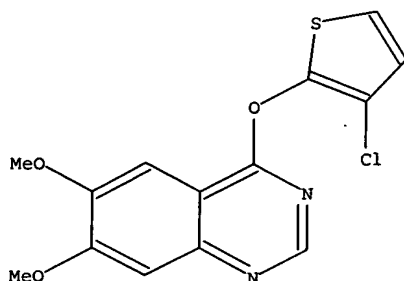
interpretation of the term “*thiophenoxy*” as *phenyl-S-* is not the meaning intended by Myers et. al.

As discussed in the previous action the term “thiophenol” denotes a moiety of *phenyl-SH* (the thiol group is a terminal group), and is equivalent to the name “*phenyl mercaptan*”. Therefore, the term “thiophenol” does not support applicants’ interpretation of *thiophenoxy* as *phenyl-S-*. Furthermore, as pointed out in the previous action, on column 3, Myers et. al. list the preferred heteroaryl rings including *thiophene* (see column 3, line 41). Also, on column 10, Myers et. al. disclose a compound having the substituent of *3-chlorophenylthio* (see column 10, line 39), which is *3-chlorophenyl-S-*. Clearly, Myers et. al. intend *thiophenoxy* to be **thiophen-O-**, and not *phenyl-S-* as suggested by applicants.

That is, the compound of *4-(3-methoxythiophenoxy)-6,7-dimethoxyquinazoline* has the structure of :



and, the compound of *4-(3-chlorothiophenoxy)-6,7-dimethoxyquinazoline* has the structure of :



Thus, the generic teaching of Myers et. al. still renders obvious compounds of the instant formula II because it teaches a substituted *thiophenoxy* group which corresponds to a group represented by the instant variables Zb-(ring C)-(R<sup>1</sup>)<sub>n</sub>. It also provides equivalent teaching for many substituents (corresponding to the instant R<sup>2</sup> and R<sup>2a</sup>) on the quinazoline ring such as: alkylthio, hydroxyl, carboxy, and carbalkoxy, etc.

3. Claims 16 and 17 remain rejected under 35 U.S.C. 103(a) as being unpatentable over **Myers et. al.** (US'969) and in view of **Mohammadi et. al.** (cited previously). The rejection is maintained for the reason stated in the previous action. It is maintained that the teaching of Myers et. al. still renders obvious the compounds of the claimed formula II. Myers et. al. use their compounds to inhibit cellular proliferation, and treat *atherosclerosis*, but they do not relate *atherosclerosis* to *angiogenesis*. Such a difference can be overcome by the teaching of Mohammadi et. al. In the teaching of Mohammadi et. al., angiogenesis is associated with atherosclerosis. Thus, it would have been obvious to apply compounds of Myers et. al. in the treatment of angiogenesis and vascular permeability in view of the teaching of Mohammadi et. al.

4. Claims 5-9 and 18 remain rejected under 35 U.S.C. 103(a) as being unpatentable over **Manning et. al.** (WO 87/04321). The rejection is maintained for the reasons stated in the previous action and for the following ones:

Applicants asserted that:

“there is no guidance in this reference that would lead the skilled person to make any compound as presently claimed....

Thus, in order to make a compound within the present claim from the Manning disclosure, the skilled person must first serendipitously select the bottom compound on page 117 out of all the compounds disclosed on pages 46 to 238, for which no particular guidance or suggestion is given..."

Applicant's argument of "no guidance" or "no suggestion" is unfounded. The fact is, Manning et. al. specifically disclose a **quinazoline compound substituted with triazinyl-O-**, and provide equivalent teaching for substituents at all positions on the quinazoline ring. Such a disclosure is guidance enough. The fact is, the last compound on page 117 is very structurally analogous to a compound of the instant formula II, but differs only in the position of substituents on the *benzo* ring of the quinazoline. Such a difference can be overcome by the generic teaching of the reference.

Thus, the guidance for one skilled in the art to make a quinazoline compound substituted with *triazinyl-O-* clearly lies in both the **species and genus** disclosed by Manning et. al.

#### ***Claim Objections***

5. Claims 10-12 remain objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Allowable Subject Matter***

6. Claim 13 is allowable for the reason stated in the previous office action.

Art Unit: 1624

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

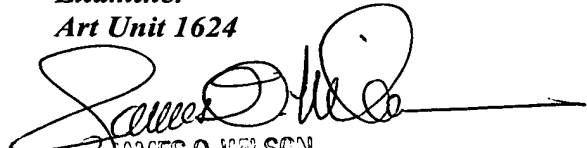
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamthom N. Truong whose telephone number is 571-272-0676. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10-21-05

  
**Tamthom N. Truong**  
**Examiner**  
**Art Unit 1624**

  
**JAMES O. WILSON**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1600**